

WHAT IS CLAIMED IS:

~~1. A battery contact and holding apparatus~~  
comprising:

a door;

5 a hinging mechanism coupled to the door;

a battery compartment, the door pivotally coupled by the hinging mechanism to the battery compartment to selectively provide access to an interior of the battery compartment;

10           a plurality of contacts for electrically coupling to  
a battery in the battery compartment, the contacts coupled  
to the battery compartment;

15        a post locator associated with the battery compartment  
for aligning one or more posts of a battery with one or  
more of the plurality of contacts and for disallowing the  
door to close off the interior of the battery compartment  
if a battery is not properly placed.

20           2. The apparatus of Claim 1 wherein the door comprises a battery-holding door having a cover, a first side wall, a second side wall, and a third side wall, the cover and side walls coupled together to form a battery-receiving housing.

25           3.    The apparatus of Claim 2 wherein the third side wall is formed with a notch therein operable to facilitate flexing of the first and second side walls for installing in the battery compartment.

4. The apparatus of Claim 1 wherein the hinging mechanism comprises:

a hinge lip formed on the door; and

5 a hinge edge formed on the battery compartment for receiving the hinge lip and allowing limited rotation of the hinge lip about the hinge edge.

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10 5. The apparatus of Claim 1 wherein the post locator is attached to the door.

6. The apparatus of Claim 1 wherein the post locator is attached to the battery compartment.

15 7. The apparatus of Claim 1 further comprising a latch mechanism formed on the door.

20 8. The apparatus of Claim 7 wherein the latch mechanism comprises an elongated latching tab formed on the door.

9. The apparatus of Claim 1 further comprising an access cavity formed in the battery compartment for facilitating opening of the door.

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10. A battery contact and holding apparatus comprising:

a door;

5 a battery compartment associated with the door, the battery compartment having an interior, the door for selectively providing access to the interior of the battery compartment;

10 a plurality of contacts for electrically coupling to a battery in the battery compartment; and

15 a post locator associated with the battery compartment for aligning one or more posts of a battery with one or more of the plurality of contacts and for disallowing the door to close off the interior of the battery compartment if a battery is not properly placed.

20 11. The apparatus of Claim 10 wherein the post locator is formed with first and second apertures or cutouts, the first aperture or cutout having a size and configuration such that the first aperture or cutout is operable to receive a negative contact of a nine volt battery, the second aperture or cutout having a size and configuration such that the second aperture or cutout is operable to receive a positive contact of a nine volt battery but is not operable to receive a negative contact of a nine volt battery.

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30 12. The apparatus of Claim 10 wherein the post locator comprises a ledge.

13. The apparatus of Claim 10 wherein the post locator comprises a means for aligning one or more posts of

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a battery with one or more of the plurality of contacts and for disallowing the door to close off the interior of the battery compartment if a battery is not properly placed.

5           14. The apparatus of Claim 10 wherein the post  
locator is formed with an aperture or cutout, the aperture  
or cutout having a size and configuration such that the  
aperture or cutout is operable to receive a first post of  
10 a battery, the first post having a first polarity, the  
aperture or cutout also having a size and configuration  
such that the aperture or cutout is not operable to receive  
a second post of the battery, the second post having a  
second polarity, the first polarity different from the  
second polarity.

15           15. The apparatus of Claim 14 wherein the post  
locator is formed with an aperture, the aperture having a  
size and configuration such that the aperture is operable  
to receive a positive post of a AA battery but not operable  
20 to receive a negative post of a AA battery.

25           16. The apparatus of Claim 14 wherein the post  
locator is formed with an aperture, the aperture having a  
size and configuration such that the aperture is operable  
to receive a positive post of a AAA battery but not  
operable to receive a negative post of a AAA battery.

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17. A method of manufacturing a battery contact and holding apparatus, the method comprising the steps of:

forming a battery compartment having an interior and at least one post locator;

5 providing a plurality of contacts for electrically coupling a battery in the battery compartment;

forming a door associated with the battery compartment;

10 pivotally coupling the door to the battery compartment; and

forming the at least one post locator with a size and configuration operable to align at least one post of a battery with the plurality of contacts and to disallow the door to close off the interior of the battery compartment if a battery is not properly placed.

18. The method of Claim 17 wherein the step of forming a door associated with the battery compartment comprises the steps of:

20 forming a cover;

forming a first side wall, a second side wall, and a third side wall; and

coupling the cover and the first, second, and third side walls together to form a battery-receiving housing.

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19. The method of Claim 18 and further comprising the step of forming a notch in the third side wall to facilitate flexing of the first and second side walls for installing in the battery compartment.

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20. The method of Claim 17 wherein:

the step of forming a door associated with the battery  
compartment comprises the step of forming a door having a  
cover; and

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the step of pivotally coupling the door to the battery  
compartment comprises pivotally coupling the door to the  
battery compartment such that the cover of the door does  
not protrude into the interior of the battery compartment  
when the door is in an open position.

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21. A battery contact and holding apparatus comprising:

a battery holding means for holding a battery;

a selective access means for selectively providing access to an interior of the battery holding means, the selective access means having a closed position;

a contact means for electrically coupling to a battery in the battery holding means, the contact means coupled to the battery holding means; and

a means for aligning one or more posts of a battery with the contact means and for disallowing closing of the selective access means if a battery is not properly aligned.

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